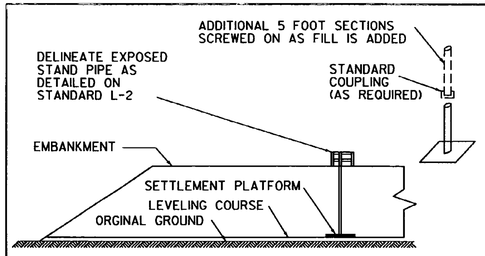
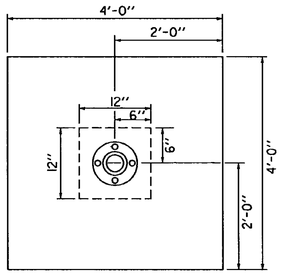
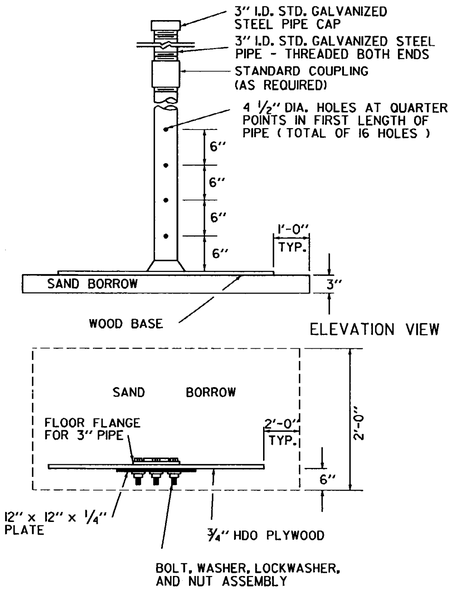


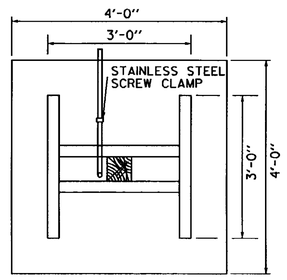
TYPICAL SECTION



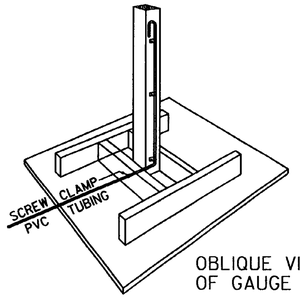
PLAN VIEW



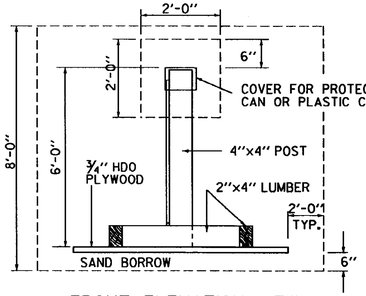
TYPE I SETTLEMENT PLATFORM (STAND PIPE TYPE)



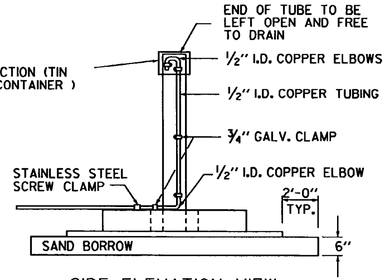
PLAN VIEW



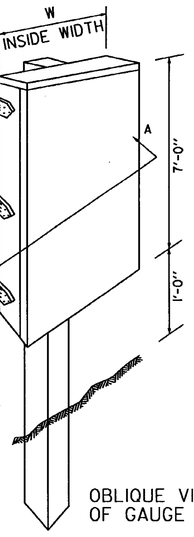
OBLIQUE VIEW OF GAUGE



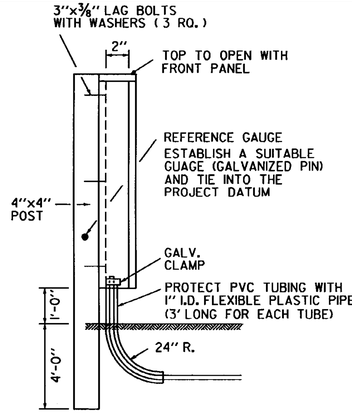
FRONT ELEVATION VIEW



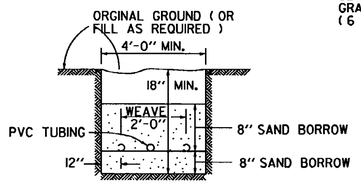
SIDE ELEVATION VIEW



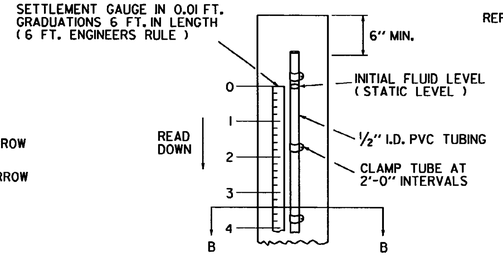
OBLIQUE VIEW OF GAUGE BOX

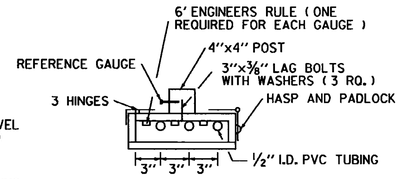


ELEVATION VIEW GAUGE BOX



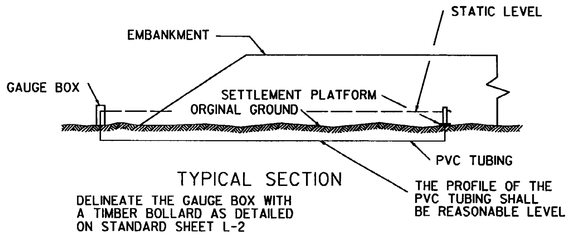
TRENCH FOR PVC TUBING





SECTION A-A

SECTION B-B



TYPICAL SECTION

DELINEATE THE GAUGE BOX WITH A TIMBER BOLLARD AS DETAILED ON STANDARD SHEET L-2

TYPE II SETTLEMENT PLATFORM (REMOTE READING TYPE)

GENERAL NOTES

1. SETTLEMENT PLATFORM BASE MATERIAL SHALL BE 4' X 4' X 3/4" HDO PLYWOOD CONFORMING TO SUBSECTION 750.06, TREATED FOR SOIL CONTACT RETENTION IN ACCORDANCE WITH AWPA C9.
2. THE SETTLEMENT PLATFORM BASE SHALL BE SET ON A MINIMUM OF 6 INCHES OF SAND BORROW GRADED AND COMPACTED TO A SMOOTH LEVEL SURFACE. WHEN DIRECTED BY THE ENGINEER ADDITONAL SAND BORROW SHALL BE USED AS A LEVELING COURSE.
3. LUMBER SHALL CONFORM TO SUBSECTION 709.01 AND BE TREATED WITH TYPE IV PRESERVATIVE IN ACCORDANCE WITH SUBSECTION 726.01 (MINIMUM RETENTION OF 0.60 PCF.).
4. HARDWARE AND NAILS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
5. DURING THE CONTRACT PERIOD THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AGAINST DAMAGE ANY EXPOSED PORTIONS OF A SETTLEMENT PLATFORM OR PIEZOMETER.
6. SAND BORROW SHALL CONFORM TO THE GRADATION REQUIREMENTS TABLE 703.03A.
7. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE, EITHER BY OPEN DITCH OR BY CULVERT (15" MIN.), FROM THE AREA SURROUNDING ANY TYPE II SETTLEMENT PLATFORM GAUGE BOX OR PIEZOMETER GAUGE PROTECTION BOX.
8. THE EXPOSED PORTION OF ANY TYPE I OR II SETTLEMENT PLATFORM AND THE GAUGE BOX FOR THE TYPE II SETTLEMENT PLATFORM SHALL BE DELINEATED WITH A TIMBER BOLLARD AS DETAILED ON STANDARD SHEET L-2.

TYPE I PLATFORM

1. THE STAND PIPE, COUPLINGS, CAPS AND FLANGE BASE SHALL BE FOR A 3" I.D. STEEL PIPE CONFORMING TO THE REQUIREMENTS OF SUBSECTION 740.05.
2. THE 12" X 12" X 1/4" STEEL PLATE SHALL BE GALVANIZED AND CONFORM TO SUBSECTION 714.03.
3. ALL BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED AND CONFORM TO SUBSECTION 714.04.

TYPE II PLATFORM

1. THE 1/2" I.D. FLEXIBLE TUBING SHALL CONFORM TO SUBSECTION 740.26. FLEXIBLE TUBING IS AVAILABLE IN 500 FOOT LENGTHS. IF A TUBE LENGTH EXCEEDING 500 FEET IS REQUIRED A 3" LONG BY 1/2" I.D. STAINLESS STEEL SCREW CLAMP SHALL BE USED FOR A SPLICE CONNECTOR.
2. THE COPPER TUBING AND FITTINGS SHALL CONFORM TO SUBSECTION 740.04.
3. THE 1" I.D. PLASTIC PIPE USED TO PROTECT THE FLEXIBLE PVC TUBING SHALL CONFORM TO SUBSECTION 740.01.
4. THE GAUGE BOX SHALL BE CONSTRUCTED OF 3/4 INCH HDO PLYWOOD. THE PIECES OF THE GAUGE BOX SHALL BE CONNECTED WITH FLAT HEAD ZINC PLATED SCREWS (PREDRILL HOLES TO PREVENT SPLITTING OF PLYWOOD). THE GAUGE BOX SHALL BE PAINTED HIGHWAY ORANGE.
5. MASTER LOCKS OR EQUIVALENT SHALL BE PROVIDED FOR EACH GUAGE BOX. ALL LOCKS SUPPLIED FOR A PROJECT SHALL HAVE A COMMON KEY.
6. A POLYETHYLENE FUNNEL SHALL BE SUPPLIED FOR EACH GAUGE BOX TO FACILITATE ADDING ADDITIONAL FLUID.
7. THE INSIDE WIDTH OF THE GAUGE BOX "W" SHALL BE A MINIMUM OF 12 INCHES (FOR MULTIPLE GAUGE INSTALLATIONS PROVIDE 3 INCHES FOR EACH GAUGE).
8. A MINIMUM OF SIX FEET OF ONE INCH I.D. PLASTIC PIPE SHALL BE INSTALLED AS A PROTECTIVE SLEEVE FOR THE PVC FLEXIBLE TUBING AS IT LEAVES THE GAUGE BOX AND ENTERS THE GROUND.
9. A STANDARD SIX FOOT FOLDING ENGINEERS RULE SHALL BE USED AS THE SETTLEMENT GAUGE. ATTACH THE RULE TO THE GAUGE BOX WITH AT LEAST ONE SCREW PER SECTION. HOLES FOR THE SCREWS SHALL BE PREDRILLED IN THE RULE TO PREVENT SPLITTING DURING ATTACHMENT. THE ZERO END OF THE RULE SHALL BE SET AT THE INITIAL STATIC LEVEL OF THE GAUGE.
10. A 3" X 3/8" GALVANIZED LAG BOLT SHALL BE MOUNTED ON THE GAUGE BOX POST AS A REFERENCE ELEVATION GAUGE. THE ELEVATION OF THE REFERENCE GAUGE SHALL BE TIED TO THE PROJECT DATUM AT THE SAME TIME THAT THE INITIAL STATIC LEVEL OF THE SETTLEMENT PLATFORM IS ESTABLISHED. THE ELEVATION OF THE REFERENCE GAUGE SHALL BE PERIODICALLY MONITORED AND ANY CORRECTION FACTOR APPROPIATELY APPLIED TO THE SETTLEMENT READINGS.

REVISIONS AND CORRECTIONS

JAN. 18, 1972 - ORIGINAL APPROVAL DATE
OCT. 7, 1975 - SHEET REDRAWN
FEB. 9, 1977 - CHANGED TUBE DETAIL AT PLATFORM
MAR. 9, 1995 - MINOR NOTE CHANGES

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

DIRECTOR OF CONSTRUCTION AND MAINTENANCE

MATERIALS AND RESEARCH ENGINEER

SETTLEMENT PLATFORM, TYPE I (STAND PIPE TYPE)

SETTLEMENT PLATFORM, TYPE II (REMOTE READING TYPE)

VERMONT AGENCY OF TRANSPORTATION

STANDARD

L-1